

RESEARCH DEPARTMENT

**MADDYBENNY MORE V.H.F. RELAY STATION: SUMMARY OF INSTALLATION**

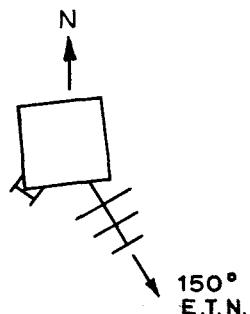
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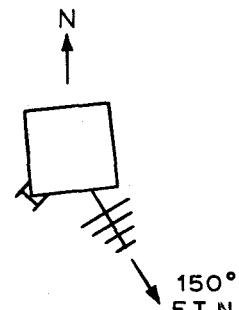
It uses SI units in accordance with B.S.  
document PD 5686.

R.D.C. Thoday, M.I.E.R.E.  
J.P. Crean

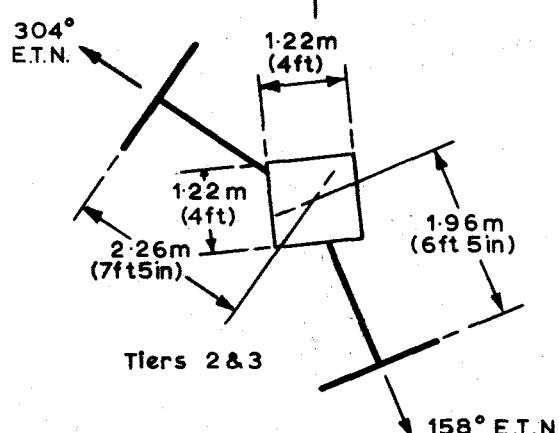
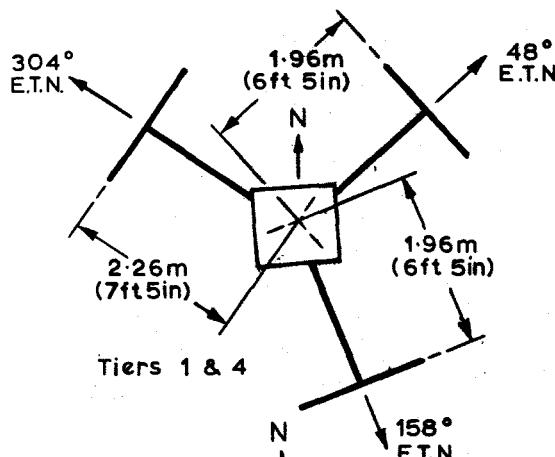
*J.P. Crean*  
for Head of Research and Development



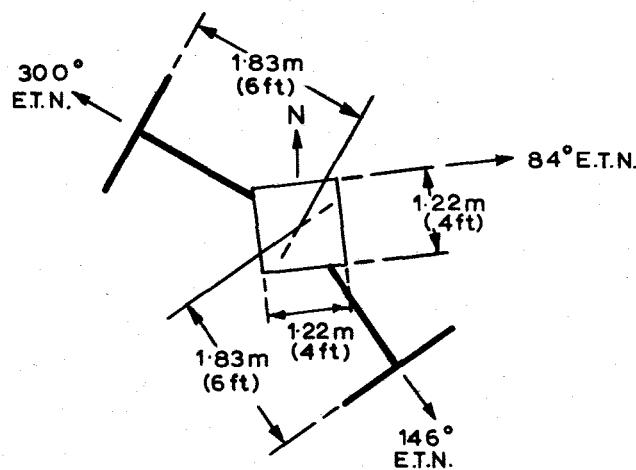
Plan of Band I receiving aerial



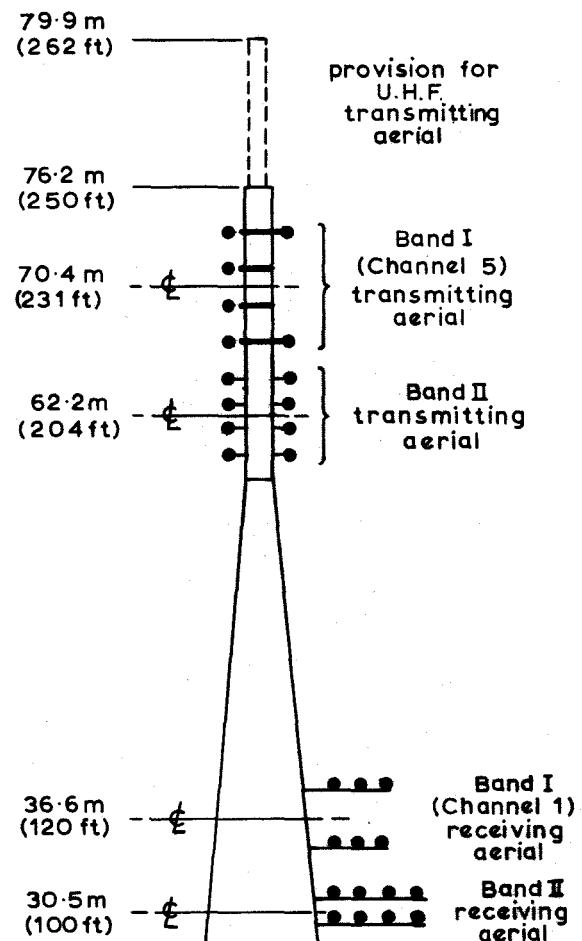
Plan of Band II receiving aerial



Plan of Band I transmitting aerial



Plan of Band II transmitting aerial



Elevation

Fig.1. General arrangement of aerials on tower

V.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION  
TELEVISION

NAME: **Maddybenny More**

SERVICE TRANSMISSIONS COMMENCED: **3rd April 1967**

SITE DATA

LOCATION: **Approximately 3 km (2.0 miles)  
south south-west of Portrush**

GRID REFERENCE: **C 847376**

HEIGHT, A.O.D.: **61.0 m (200 ft)**

TRANSMITTING AERIAL

DESCRIPTION: **Horizontal  $\lambda/2$  dipoles,  
with tower screening**

NUMBER OF TIERS: **4**

MEAN HEIGHT: **70.4 m (231 ft) a.g.l.**

SUPPORT STRUCTURE

TYPE: **Self-supporting tower**

OVERALL HEIGHT: **76.2 m (250 ft)**

FEEDERS

TRANSMITTING: **PT98**

GENERAL ARRANGEMENT

FIGURE: **1**

RADIATION CHARACTERISTICS

POLARIZATION: **Horizontal**

MEAN E.R.P.: **10W**

FREQUENCIES

BAND: **I**

MAXIMUM E.R.P.: **24W**

CHANNEL: **5**

H.R.P.: **Fig.2**

VISION CARRIER OFFSET: **+16.875 kHz**

SOUND CARRIER OFFSET: **+16.875 kHz**

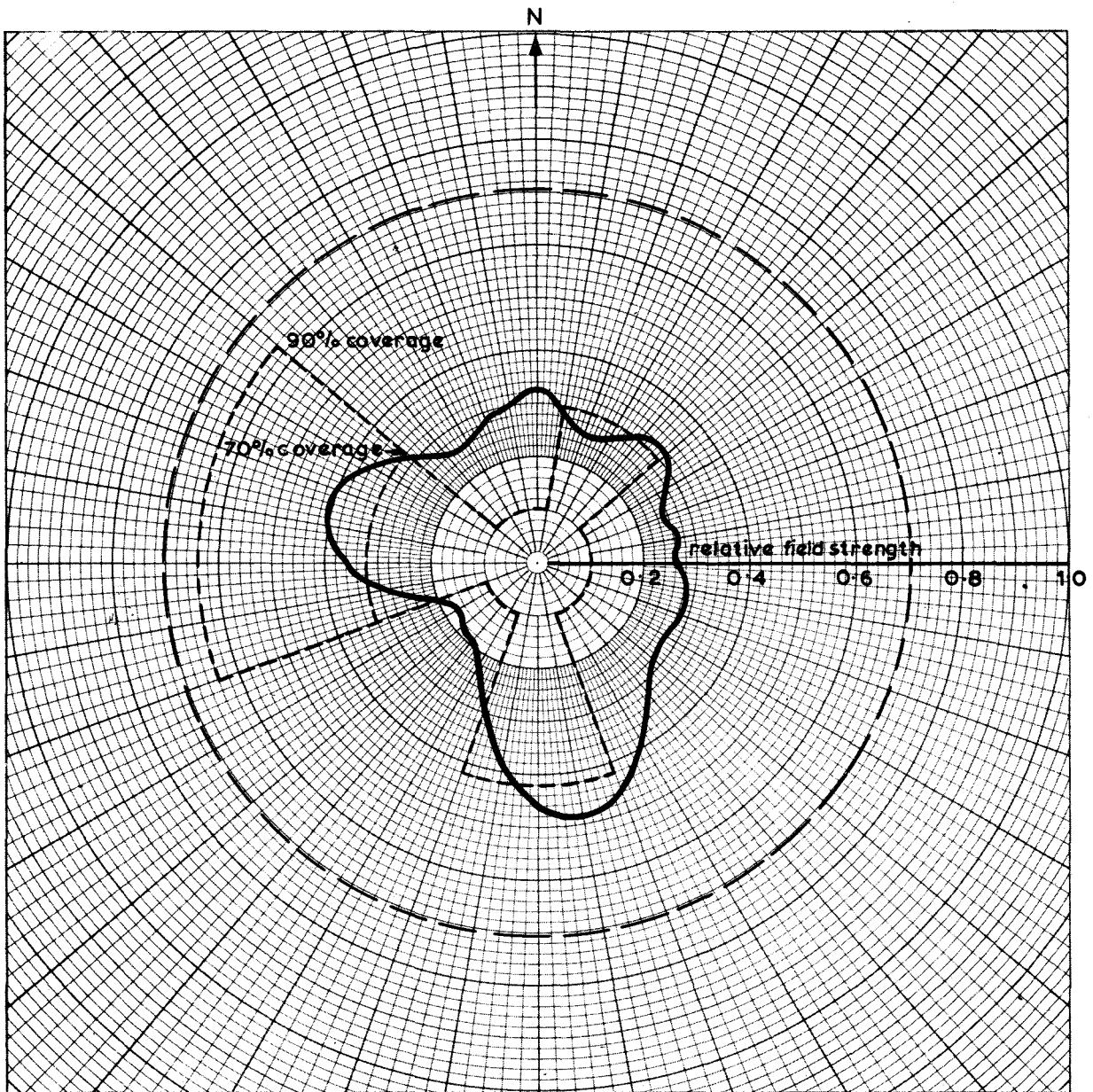
PROGRAMME SOURCE

TRANSMITTER

POWER: **LOW (translator)**

PARENT: **Divis**  
**obtained by direct reception**

NOTES:



**Fig. 2. Band I templet and horizontal radiation pattern**

— — — Maximum permissible E.R.P.

— - - - Minimum desirable E.R.P.

Unit field corresponds to an E.R.P. of 100 W

V.H.F. RELAY STATIONS : SUMMARY OF INSTALLATION  
SOUND

NAME: **Maddybenny More**

SERVICE TRANSMISSIONS COMMENCED: **26th June 1967**

BAND II FREQUENCIES

RADIO 2: **88.7 MHz**  
RADIO 3: **90.9 MHz**  
RADIO 4: **93.1 MHz**

RADIATION CHARACTERISTICS

POLARIZATION: **Horizontal**  
MEAN E.R.P.: **10.4W**  
MAXIMUM E.R.P.: **31.4W**

TRANSMITTER

POWER: **low (translator)**

H.R.P.: **Fig.3**

TRANSMITTING AERIAL

DESCRIPTION: **Two horizontal  $\lambda/2$  dipoles per tier, with tower screening**

PROGRAMME SOURCE

PARENT: **Divis**  
obtained by direct reception

NUMBER OF TIERS: **4**

MEAN HEIGHT: **62.2 m (204 ft) a.g.l.**

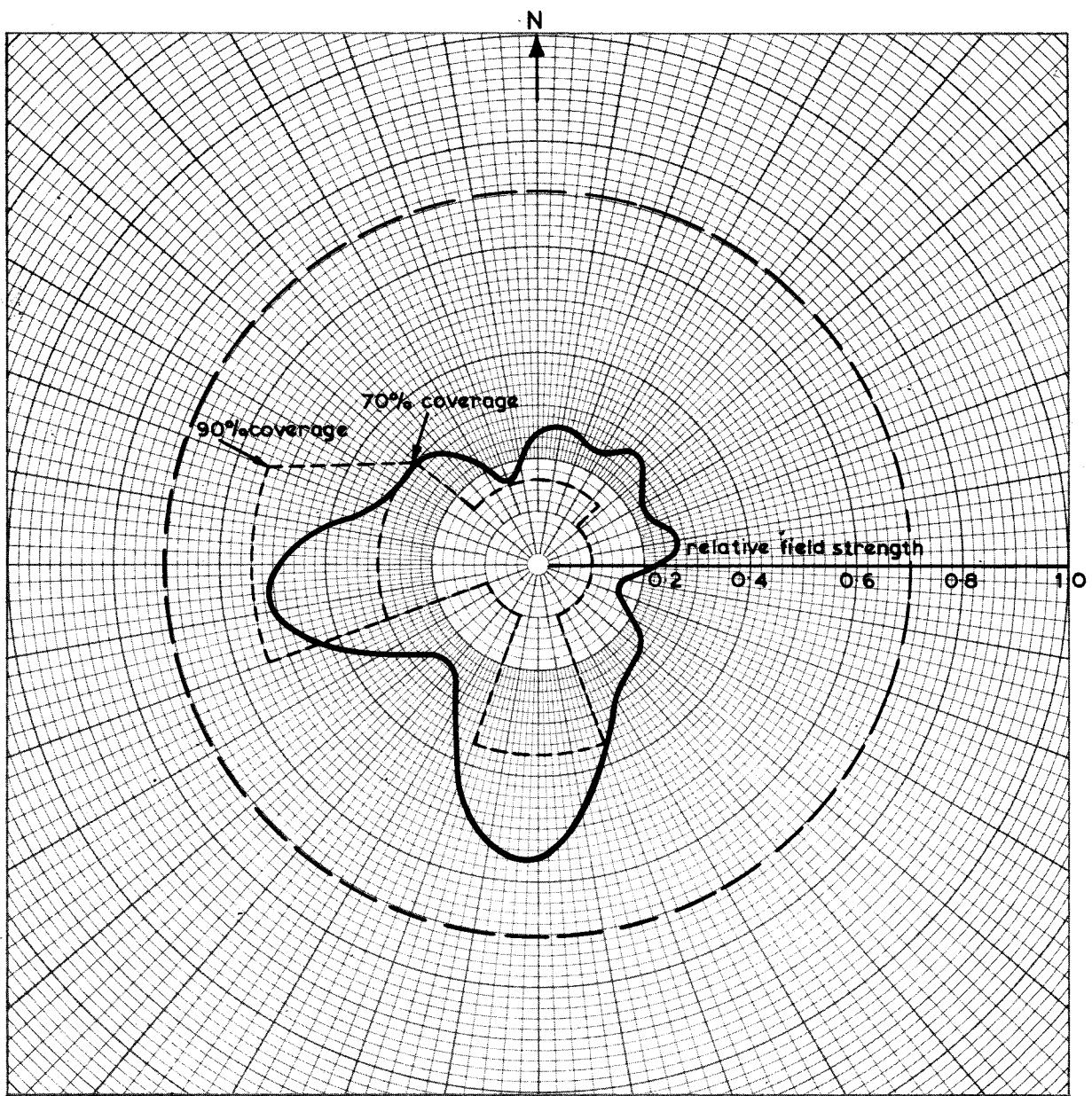
FEEDERS

TRANSMITTING: **PT98**

NOTES:

1. Detailed information is given on the following drawings held by BBC Transmitter Planning and Installation Department:

TP6047.2.171A4 **Maddybenny More Aerial Arrangements on 250 ft Tower**  
TP9513.2.2A0 **Band I Transmitting Dipole**  
TP9513.3.3A0 **Band II Transmitting Dipole**  
PID8732.2.4A2 **Band I Yagis, Type 353P**  
PID8732.2.5A2 **Band II Yagis, Type 453P**



**Fig. 3. Band II templet and horizontal radiation pattern**

— — — Maximum permissible E.R.P.  
- - - - Minimum desirable E.R.P.  
Unit field corresponds to an E.R.P. of 100 W